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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/199,786	11/25/1998	NATALIE GIROUX	95443USA	4075

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EXAMINER
LOGSDON, JOSEPH B

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 10/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/199,786	GIROUX ET AL.	
	Examiner	Art Unit	
	Joe Logsdon	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections—35 U.S.C.102(e):

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Meurisse et al. Meurisse et al. discloses a method and apparatus for controlling the data flow rate of data transmitted over a connection between a source terminal and a destination terminal, wherein the method comprises the steps of monitoring an actual packet rate of data transmitted over the connection; calculating an upper packet rate value that is proportional to the actual packet rate (the explicit rate); embedding the upper packet rate value in a data flow control packet; sending the data flow control packets to the source terminal; and maintaining the data flow rate at the source terminal below the upper packet rate value (column 1, line 62 to column 2, line 14; column 3, lines 5-10)column 5, line 47 to column 6, line 15; column 6, lines 33-35; column 7, lines 1-6; column 7, lines 39-46; column 7, lines 56-63). An embodiment uses ATM, so the data flow control packet can properly be referred to as a "management cell" (column 4, line 63 to column 5, line 65; column 9, lines 38-41). Every transmission link inherently has a physical layer transport rate that is subject to variations due to actual conditions of the transmission link itself, temperature variations, and/or electromagnetic interference.

Claim Rejections—35 U.S.C. 103(a):

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2-5, 8, 9, 11, 13, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meurisse et al.

With regard to claims 2-5, 8, and 9, the explicit rate is inherently a "threshold" because the source transmission rate is not allowed to exceed the explicit rate. Meurisse et al. fails to teach that the management cells are generated in response to changes in measured transport rate above or below a threshold. It would have been obvious to one of ordinary skill in the art to modify the teaching of Meurisse et al. so that the management cells are generated in response to

changes in measured transport rate above or below a threshold because such an arrangement helps to minimize unnecessary traffic, and, when the transport rate is estimated over time intervals of fixed length, such an arrangement allows the effect of time delay across the network to be minimized by allowing the destination terminal to estimate, based on the estimated rate of change of transport rate, the present transport rate at the source terminal.

With regard to claims 11 and 13, Meurisse et al. discloses a method and apparatus for controlling the data flow rate of data transmitted over a connection between a source terminal and a destination terminal, wherein the method comprises the steps of monitoring an actual packet rate of data transmitted over the connection; calculating an upper packet rate value that is proportional to the actual packet rate (the explicit rate); embedding the upper packet rate value in a data flow control packet; sending the data flow control packets to the source terminal; and maintaining the data flow rate at the source terminal below the upper packet rate value (column 1, line 62 to column 2, line 14; column 3, lines 5-10; column 5, line 47 to column 6, line 15; column 6, lines 33-35; column 7, lines 1-6; column 7, lines 39-46; column 7, lines 56-63). An embodiment uses ATM, so the data flow control packet can properly be referred to as a "management cell" (column 4, line 63 to column 5, line 65; column 9, lines 38-41). The explicit rate is inherently a "threshold" because the source transmission rate is not allowed to exceed the explicit rate. Meurisse et al. fails to teach that the management cells are generated in response to changes in measured transport rate above or below a threshold. It would have been obvious to one of ordinary skill in the art to modify the teaching of Meurisse et al. so that the management cells are generated in response to changes (either increases or decreases) in measured transport rate above or below a threshold because such an arrangement helps to minimize unnecessary

traffic, and, when the transport rate is estimated over time intervals of fixed length, such an arrangement allows the effect of time delay across the network to be minimized by allowing the destination terminal to estimate, based on the estimated rate of change of transport rate, the present transport rate at the source terminal.

With regard to claims 22-24, Meurrise et al. fails to teach that the management message is contained in a management cell; the rate information is new rate information; and the rate information is rate adjustment information. It would have been obvious to one of ordinary skill in the art to modify the invention of Meurisse et al. so that the management message is contained in a management cell; the rate information is new rate information; and the rate information is also rate adjustment information because such an arrangement would allow the rate calculations to be made at node Q, which has access to the rates from all the sources and can therefore effectively make the necessary calculations, and the results of the calculations to be sent by node Q back to the sources; the use of management cells has been well known in the art as an effective means for accomplishing this objective.

6. Claims 6, 10, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meurisse et al. in view of Chang et al.

With regard to claims 6 and 10, Meurisse et al. teaches that the system and method can be applied to ABR. Meurisse et al. fails to teach that the rate information can be inserted into RM cells. Chang et al. teaches a rate-based flow control mechanism in ATM networks that controls the transmission rate of ABR traffic sources based on feedback information contained in RM cells coming from the destination node (Abstract); use of RM cells offers the advantages that

RM cells can return other useful information such as congestion status and expected cell rate, and RM cells allow the destination terminal to base its calculations on information contained in the RM cells that arrive at the destination terminal from the source terminal (Introduction). It would have been obvious to one of ordinary skill in the art to modify the invention of Meurisse et al. so that the feedback information, i.e., information concerning the measured flow rate, is contained in RM cells, as in Chang et al., because RM cells can return other useful information such as congestion status and expected cell rate, and such an arrangement allows the destination terminal to base its calculations on information contained in the RM cells that arrive at the destination terminal from the source terminal.

With regard to claims 14 and 21, Meurisse et al. discloses a method and apparatus for controlling the data flow rate of data transmitted over a connection between a source terminal and a destination terminal, wherein the method comprises the steps of monitoring an actual packet rate of data transmitted over the connection; calculating an upper packet rate value that is proportional to the actual packet rate (the explicit rate); embedding the upper packet rate value in a data flow control packet; sending the data flow control packets to the source terminal; and maintaining the data flow rate at the source terminal below the upper packet rate value (column 1, line 62 to column 2, line 14; column 3, lines 5-10)column 5, line 47 to column 6, line 15; column 6, lines 33-35; column 7, lines 1-6; column 7, lines 39-46; column 7, lines 56-63). An embodiment uses ATM, so the data flow control packet can properly be referred to as a "management cell" (column 4, line 63 to column 5, line 65; column 9, lines 38-41). Meurisse et al. teaches that the system and method can be applied to ABR. Meurisse et al. fails to teach that the rate information can be inserted into RM cells. Chang et al. teaches a rate-based flow control

mechanism in ATM networks that controls the transmission rate of ABR traffic sources based on feedback information contained in RM cells coming from the destination node (Abstract); use of RM cells offers the advantages that RM cells can return other useful information such as congestion status and expected cell rate, and RM cells allow the destination terminal to base its calculations on information contained in the RM cells that arrive at the destination terminal from the source terminal (Introduction). It would have been obvious to one of ordinary skill in the art to modify the invention of Meurisse et al. so that the feedback information, i.e., information concerning the measured flow rate, is contained in RM cells, as in Chang et al., because RM cells can return other useful information such as congestion status and expected cell rate, and such an arrangement allows the destination terminal to base its calculations on information contained in the RM cells that arrive at the destination terminal from the source terminal.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meurisse et al., as applied to claim 11, above, and further in view of Chang et al. Meurisse et al. teaches that the system and method can be applied to ABR. Meurisse et al. fails to teach that the rate information can be inserted into RM cells. Chang et al. teaches a rate-based flow control mechanism in ATM networks that controls the transmission rate of ABR traffic sources based on feedback information contained in RM cells coming from the destination node (Abstract); use of RM cells offers the advantages that RM cells can return other useful information such as congestion status and expected cell rate, and RM cells allow the destination terminal to base its calculations on information contained in the RM cells that arrive at the destination terminal from the source terminal (Introduction). It would have been obvious to one of ordinary skill in the art to modify

the invention of Meurisse et al. so that the feedback information, i.e., information concerning the measured flow rate, is contained in RM cells, as in Chang et al., because RM cells can return other useful information such as congestion status and expected cell rate, and such an arrangement allows the destination terminal to base its calculations on information contained in the RM cells that arrive at the destination terminal from the source terminal.

8. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meurisse et al. and Chang et al., as applied to claim 14 above, and further in view of the Admitted Prior Art.

With regard to claims 15-17, neither Meurisse et al. nor Chang et al. teaches the use of bi-directional ADSL. The Admitted Prior Art teaches that xDSL modems and ADSL are well-known in the art (page 3, lines 12-25). It would have been obvious to one of ordinary skill in the art to modify the teaching of Meurisse et al. and Chang et al. to include xDSL modems and bi-directional ADSL because such an arrangement would allow adjustment of the transmission rate of the source and efficient use of channel capacity for applications that tend to involve asymmetric capacity demands such as conferencing and Internet access.

With regard to claim 18, neither Meurisse et al. nor Chang et al. teaches the use UBR. The Admitted Prior Art teaches that UBR is proposed for the ADSL service interface with ATM networks (page 3, line 22 to page 4, line 7). It would have been obvious to one of ordinary skill in the art to modify the teaching of Meurisse et al. and Chang et al. to include UBR because UBR is a useful service for non-real time applications.

With regard to claim 19, neither Meurisse et al. nor Chang et al. teaches the use of a wireless path. The Admitted Prior Art teaches that wireless paths are conventionally used (page

4, line 20 to page 5, line 1). It would have been obvious to one of ordinary skill in the art to modify the teaching of Meurisse et al. and Chang et al. to include a wireless path because a wireless path would allow the source and destination to be mobile.

With regard to claim 20, neither Meurisse et al. nor Chang et al. teaches the use of a IMA. The Admitted Prior Art teaches that IMA is conventionally used (page 5, lines 5-10). It would have been obvious to one of ordinary skill in the art to modify the teaching of Meurisse et al. and Chang et al. to include IMA because IMA is a well known means of communicating over multiple paths in a network.

Response to Arguments:

9. Applicant argues that Meurisse et al. fails to teach or suggest a physical layer transport rate, radio interference, weather, or interference of any kind. But the presence of these forms of interference is inherent to any communications system.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Logsdon whose telephone number is (703) 305-2419. The examiner can normally be reached on Monday through Friday from 1:00 pm to 9:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

11. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314

For informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Joe Logsdon

Patent Examiner

Wednesday, October 16, 2002

HASSAN KIZOU
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TECHNOLOGY CENTER 2600